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PROBLEMS OF OCCUPATIONAL  
HYGIENE IN AGRICULTURE AS  
DISCUSSED AT A SYMPOSIUM IN  
SARATOV

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PROBLEMS OF OCCUPATIONAL HYGIENE IN AGRICULTURE AS DISCUSSED AT A  
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[Following is the translation of an article by V. N. Kozlov (Saratov), published in the Russian-language periodical Gigiyena Truda i Professional'nyye Zabolevaniya (Industrial Hygiene and Occupational Illnesses) 7 (5), 1963, pages 59-60. Translation performed by Sp/6 Charles T. Ostertag Jr.]

On the initiative of the Scientific Council of the RSFSR Ministry of Public Health, a symposium devoted to rural hygiene was convened on 10-11 May, 1962 in Saratov on the basis of the Scientific Research Institute for Rural Hygiene. The participants at this meeting examined problems of industrial hygiene in agriculture and communal hygiene in the village.

Taking part in the symposium were representatives of the RSFSR Ministry of Public Health, hygiene personnel from medical institutes, doctors from sanitary-epidemiological stations of Krasnodarskiy Kray, Pskovskaya, Tambovskaya, Voronezhskaya, Leningradskaya, Moskovskaya, Saratovskaya, and other krays and oblasts of the RSFSR, and also guests from the Ukrainian and Belorussian Republics.

Corresponding member of the AMN, USSR, Professor D. N. Kalyuzhnyy, came forward with an account of the status of research on village hygiene in the country.

Ye. I. Kandaurovaya's report (Moscow) contained new data on the hygienic nature of working conditions for mechanics working on various agricultural machinery. For improving the working conditions on newly developed tractors, the author recommends the installation of a cabin made out of heat insulation and soundproofing materials, an arrangement for shock proofing and regulating the height of the seat, the carrying out of effective measures in combating noise and vibration, and equipping the cabin with air conditioning.

V. N. Kozlov reported about the results of the complex physiological investigations of tractor drivers working on new makes of high speed caterpillar tractors which were performed by a group of authors at the Saratov Institute of Rural Hygiene. He noted that the most characteristic physiological upheavals in tractor drivers were developed on the part of those systems of the organism which were found under

the most intensive influence of unfavorable industrial factors. Thus in tractor drivers under the conditions of work, there was a lowering of the functions of external respiration and of the auditory analyzer, and stress was observed on the processes of thermoregulation. Muscular fatigue was noted with several peculiarities in it, conditioned by muscular static tension due to the working position.

The report of M. I. Karpovaya (Saratov) caused lively interest. The speaker announced facts about the hygienic investigations conducted at mechanized threshing floors and elevators and experiments on animals subjected to the influence of grain dust. The author observed in experimental animals the formation of cellular granulomae around the dust particles and also profound inflammatory changes in the lung tissues. The results of the investigation permit the making of a number of hygienic recommendations concerning the sanitation of working conditions at mechanized threshing floors and elevators.

M. N. Krasnogorskaya (Saratov) presented a report on the problems of industrial hygiene when working with poisonous chemicals. Materials were presented in it about the hygienic evaluation of experimental models of new ventilator sprays, an aerosol generator, a hose sprayer, and other equipment intended for work with poisonous chemicals in agriculture; general deficiencies in these machines were exposed. Manual operations are present which lead to contact of the workers with poisonous chemicals during the preparation of working solutions and dusts, and also when loading them in receptacles, etc. The mechanization of operations with poisonous chemicals and the creation of new machines which meet hygienic requirements - this is the most important link in the sanitation of working conditions when working with poisonous chemicals.

Professor L. I. Los' (Saratov), P. N. Zhilin (Moscow), A. I. Aksel'rod (Moscow), and Ye. G. Polyakova and G. A. Abramovich (Saratov) came to the symposium with communications on problems of communal hygiene in the village.

The reports caused a lively debate in which 24 persons took part. It was unanimously noted that the increase of attention of the medical workers of the Russian Federation to research on village hygiene yielded several positive results of the problem in question. It was noted simultaneously in speeches at the symposium that these successes already could satisfy neither the hygienists nor even more so the practical needs of the agricultural economy. It is necessary to widen the conduct of investigations, raise the quality of the work performed, and attract the branch-institutes dealing in hygiene to participate in them. A particular concern was caused by the state of realization of the results of the investigations concerning the hygiene of agricultural labor in the practice of the agricultural economy. Engineer-designers now basically know the hygienic deficiencies of the tractors and combines developed by them, but encountering certain difficulties, they are not eliminating them.

It is necessary to establish the very intimate contact and business collaboration of the hygienists with the engineers who will often decide common problems. Without a well established coordination of research, especially inter-departmental, it will be very difficult to do this.

Based on the results of the symposium's work its participants accepted the decision which evolved. It contains a number of concrete proposals directed at the improvement of the organization and quality of research concerning rural hygiene.